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Listing of the Claims

1. (original) A method for forming electrically conductive bumps on a wafer comprising the steps of:

providing a wafer having an active surface, a plurality of conductive elements formed on the active surface, and a passivation layer insulating said plurality of conductive elements from each other,

sputter depositing a first metal layer on top of said plurality of conductive elements and said passivation layer,

printing a plurality of bumps of an insulating material each on top of one of said plurality of conductive elements,

heat treating said plurality of bumps at a temperature of at least 100°C,

sputter depositing a second metal layer on top of said plurality of bumps and said first metal layer, and

patterning and removing said first and said second metal layer in areas in-between said plurality of bumps.

2. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of forming said plurality of conductive elements spaced-apart by at least 100 μm .

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3. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of forming said plurality of conductive elements in aluminum or copper.

4. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of forming said passivation layer in an insulating material.

5. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of sputter depositing said first metal layer in a material selected from the group consisting of Al, Ni, Ti, W, Cu, Cr and alloys thereof.

6. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of sputter depositing said first metal layer to a thickness not higher than 50 μm .

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7. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of printing said plurality of bumps by a stencil printing technique.

8. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of printing said plurality of bumps by a stencil printing technique in a polymeric material.

9. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of printing said plurality of bumps by a stencil printing technique in polyimide.

10. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of printing said plurality of bumps by a stencil printing technique to a width of at least 50 μm .

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11. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of printing said plurality of bumps by a stencil printing technique to a thickness of at least 20 μm .

12. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of printing said plurality of bumps by a stencil printing technique in a polymeric-based paste.

13. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of printing said plurality of bumps by a stencil printing technique in a solvent-containing polymeric paste.

14. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of depositing said second metal layer in a material selected from the group consisting of Al, Ni, Ti, W, Pt, Pd, Cu, Cr, Ag, Au, In, Sn, Pb and alloys thereof.

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15. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of patterning said first and said second metal layer by a photolithographic method.

16. (original) A method for forming electrically conductive bumps on a wafer according to claim 1 further comprising the step of removing said first and said second metal layers by a photolithographic and a wet etch method.

17. - 24. (cancelled)